925 Euclid Avenue

Cleveland, Ohio 44115

HAZARDS IDENTIFICATION

(ANSI Section 3)

MATERIAL SAFETY DATA SHEET

Primary route(s) of exposure: Inhalation, skin contact, eye contact, ingestion. Effects of overexposure:

- Inhalation: Irritation of respiratory tract. Prolonged inhalation may lead to loss of appetite, mucous membrane irritation, fatigue, drowsiness, dizziness and/or lightheadedness, headache, uncoordination, nausea, vomiting, diarrhea, chest pain, sore throat, coughing, choking, difficulty with speech, central nervous system depression, tightness of chest, metallic taste. confusion, difficulty of breathing, blood abnormalities, tremors, severe respiratory tract irritation, respiratory tract burns, severe lung irritation or burns, liver damage, kidney damage, spleen damage, pulmonary edema, neurotoxicity, respiratory failure.
- Skin contact: Irritation of skin, this material is corrosive and may cause burns on contact. Prolonged or repeated contact can cause dermatitis, defatting, allergic response, severe skin irritation or burns. Possible sensitization to skin. Skin contact may result in dermal absorption of component(s) of this product which may cause fatigue, drowsiness, dizziness and/or lightheadedness, headache, uncoordination, nausea, vomiting, diarrhea, central nervous system depression, blood abnormalities, liver damage, kidney damage.
- Eye contact: Irritation of eyes, this material is corrosive and may cause burns on contact. Prolonged or repeated contact can cause conjunctivitis, tearing of eyes, redness of eyes, severe eye irritation, severe eye irritation or burns, corneal injury, burns, blindness.
- Ingestion: Ingestion may cause lung inflammation and damage due to aspiration of material into lungs, fatigue, drowsiness, dizziness and/or lightheadedness, headache, uncoordination, nausea, vomiting, diarrhea, gastro-intestinal disturbances, severe abdominal pain, abdominal pain, central nervous system depression, blood abnormalities, burns of the mouth, throat, stomach, liver damage, kidney damage, pulmonary edema, respiratory failure.
- Medical conditions aggravated by exposure: Eye, skin, respiratory disorders lung disorders asthmalike conditions kidney disorders respiratory disorders

FIRST-AID MEASURES

(ANSI Section 4)

- Inhalation: Remove to fresh air. Restore and support continued breathing. Get emergency medical attention. Have trained person give oxygen if necessary. Get medical help for any breathing difficulty. Remove to fresh air if inhalation causes eye watering, headaches, dizziness, or other discomfort.
- Skin contact: Wash thoroughly with soap and water. If any product remains, gently rub petroleum jelly, vegetable or mineral/baby oil onto skin. Repeated applications may be needed. Remove contaminated clothing. Wash contaminated clothing before re-use. Dispose of contaminated leather items, such as shoes and belts. If irritation occurs, consult a physician.
- Eye contact: Flush immediately with large amounts of water, especially under lids for at least 15 minutes. If irritation or other effects persist, obtain medical treatment.
- Ingestion: If swallowed, obtain medical treatment immediately.

FIRE-FIGHTING MEASURES

(ANSI Section 5)

Fire extinguishing media: Dry chemical or foam water fog. Carbon dioxide. Closed containers may explode when exposed to extreme heat or fire. Vapors are heavier than air and may travel long distances to a source of ignition and flash back. Vapors can form explosive mixtures in air at elevated temperatures. Closed containers may burst if exposed to extreme heat or fire. May decompose under fire conditions emitting irritant and/or toxic gases.

- Fire fighting procedures: Water may be used to cool and protect exposed containers. Firefighters should use full protective clothing, eye protection, and self-contained breathing apparatus, Selfcontained breathing apparatus recommended.
- Hazardous decomposition or combustion products: Carbon monoxide, carbon dioxide, oxides of nitrogen, acrid fumes, ammonia, peroxides, aldehydes, toxic gases, acids, unidentified organic compounds. Oxides of calcium, ketones.

ACCIDENTAL RELEASE MEASURES

(ANSI Section 6)

Steps to be taken in case material is released or spilled: Comply with all applicable health and environmental regulations. Eliminate all sources of ignition. Ventilate area. Use non-sparking tools. Evacuate all unnecessary personnel. Place collected material in proper container. Complete personal protective equipment must be used during cleanup. Large spills - shut off leak if safe to do so. Dike and contain spill. Pump to storage or salvage vessels. Use absorbent to pick up excess residue. Keep salvageable material and rinse water out of sewers and water courses. Small spills - use absorbent to pick up residue and dispose of properly.

HANDLING AND STORAGE

(ANSI Section 7)

- Handling and storage: Store below 100f (38c). Keep away from heat, sparks and open flame. Keep from freezing. Keep away from direct sunlight, heat and all sources of ignition. Keep container tightly closed in a well-ventilated area.
- Other precautions: Use only with adequate ventilation. Do not take internally. Keep out of reach of children. Avoid contact with skin and eyes, and breathing of vapors. Wash hands thoroughly after handling, especially before eating or smoking. Keep containers tightly closed and upright when not in use. Empty containers may contain hazardous residues. Ground equipment when transferring to prevent accumulation of static charge.

EXPOSURE CONTROLS/PERSONAL PROTECTION (ANSI Section 8)

- Respiratory protection: Control environmental concentrations below applicable exposure standards when using this material. When respiratory protection is determined to be necessary, use a NIOSH/MSHA (Canadian z94.4) Approved elastomeric sealing- surface facepiece respirator outfitted with organic vapor cartridges and paint spray (dust/mist) prefilters. Determine the proper level of protection by conducting appropriate air monitoring. Consult 29CFR1910.134 For selection of respirators (Canadian z94.4).
- Ventilation: Provide dilution ventilation or local exhaust to prevent build-up of vapors. Use explosionproof equipment.
- Personal protective equipment: Eye wash, safety shower, safety glasses or goggles. Impervious gloves, impervious clothing, face shield, boots.

STABILITY AND REACTIVITY

(ANSI Section 10)

Under normal conditions: Stable see section 5 fire fighting measures

Materials to avoid: Oxidizers, acids, bases, amines, metals. hypochlorites, nitric acid, combustible materials, lewis acids, caustics, mineral acids.

Conditions to avoid: Elevated temperatures, contact with oxidizing agent, freezing, sparks, open flame, ignition sources. Contact with combustible materials

Hazardous polymerization: Will not occur may polymerize in presence of aliphatic amines.

TOXICOLOGICAL INFORMATION

(ANSI Section 11)

Supplemental health information: Contains a chemical that is moderately toxic by ingestion. Contains a chemical that is toxic by ingestion. Contains a chemical that is toxic by ingestion. Contains a chemical that is toxic by inhalation. Symptoms may be delayed. This material is corrosive; avoid contact. Contains a chemical that may be absorbed through skin. Contact with eyes may cause permanent injury. Notice - reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Prolonged inhalation of mica may cause pneumoconiosis. Symptoms may include a progressive dry cough, shortness of breath on exertion, decreased chest expansion, weakness and weight loss. Other effects of overexposure may include toxicity to liver, kidney, lungs, central nervous system, blood, spleen, heart.

Carcinogenicity: Contains crystalline silica which is considered a hazard by inhalation. IARC has classified crystalline silica as carcinogenic to humans (group 1). Crystalline silica is also a known cause of silicosis, a noncancerous lung disease. The national toxicology program (NTP) has classified crystalline silica as a known human carcinogen. In a 2-year inhalation bioassay conducted by the national toxicology program (NTP), ethylene glycol butyl ether (egbe) caused an increased incidence of liver tumors in male mice and forestomach tumors in female mice exposed to 250 ppm, the highest concentration tested with mice. In rats, an increased incidence of tumors affecting the adrenal gland was seen in females exposed at 125 ppm only. This finding was not statistically significant. No increased incidence of any tumor type was seen in male rats exposed to the highest test concentration of 125ppm. The relevance of these findings to humans is unclear.

Reproductive effects: No reproductive effects are anticipated

Mutagenicity: No mutagenic effects are anticipated Teratogenicity: No teratogenic effects are anticipated

ECOLOGICAL INFORMATION

(ANSI Section 12)

No ecological testing has been done by ICI paints on this product as a whole.

DISPOSAL CONSIDERATIONS

(ANSI Section 13)

Waste disposal: Dispose in accordance with all applicable regulations. Avoid discharge to natural waters.

REGULATORY INFORMATION

(ANSI Section 15)

As of the date of this MSDS, all of the components in this product are listed (or are otherwise exempt from listing) on the TSCA inventory. This product has been classified in accordance with the hazard criteria of the CPR (controlled products regulations) and the MSDS contains all the information required by the CPR.

Physical Data

(ANSI Sections 1, 9, and 14)

Product			1/00	44.34.4.45				
Code	Description 15 orbits	Wt. / Gal.	VOC gr. / ltr.	% Volatile by Volume	Flash Point	Boiling Range	HMIS	DOT, proper shipping name
	tru-glaze wb waterborne epoxy primer - part a	11.72	138.77	53.34	none	212-212	*210	paint ** protect from freezing **
4030-6130 4030-7100	tru-glaze-wb 4030 waterborne epoxy primer light gray (component a)	11.72	138.65	53.32	none	212-212	*210	paint ** protect from freezing **
	tru-glaze wb 4030 waterborne epoxy primer mcdonalds red (component a)	11.31	145.65	55.89	none	212-212	*210	paint ** protect from freezing **
4030-9999	tru-glaze wb 4030 waterborne epoxy primer converter (component b)	10.09	352.92	49.05	125 f	212-343	*320	paint, combustible liquid, UN 1263, PGIII

Ingredients

Product Codes with % by Weight (ANSI Section 2)

Chemical Name	Common Name	CAS, No.	4030-1000	4030-6130	4030-7100	4030-9999
fatty, c18-unsald. dimers, polymer with bisphenol a epichlorohydrin, tall-oil fatty acids, tetraethyl pentamine and triethylenetetramine	polyamidoamines	106906-26-7	1000*1000	4030-0130	4030-7100	10-20
benzene, methyl-	toluene	108-88-3				
ethanol, 2-butoxy-	2-butoxyethanol					1-5
ethanol, 2-butoxy-, acetate	2-butoxyethyl acetate	111-76-2				10-20
mica		112-07-2	1-5	1-5	1-5	
limestone	mica	12001-26-2	5-10	5-10	5-10	
iron oxide	timestone	1317-65-3	10-20	10-20	10-20	20-30
	iron oxide	1332-37-2			5-10	
fitanium oxide	titanium dioxide	13463-67-7	10-20	10-20		
quartz	quartz	14808-60-7	.1-1.0	.1-1.0	.1-1.0	440
oxirane,2,2'-(((1-methylethylidene) bis (4,1-phenyleneoxymethylene))) bis-	diglycidyl ether of bisphenol a	1675-54-3	1-5	1-5		.1-1.0
aluminum hydroxide	aluminum hydroxide	21645-51-2			1-5	
ethanol, 2-propoxy-	ethylene glycol monopropyl ether		1-5	1-5		
acetic acid		2807-30-9	1-5	1-5	1-5	1-5
silica	acetic acid	64-19-7				1-5
water	amorphous silica	7631-86-9	1-5	1-5		
	water	7732-18-5	30-40	30-40	30-40	10-20
poly(oxy(methyl-1,2-ethanediyl)), alpha- (2-aminomethylethyl)omega-2-aminomethylethoxy)-	poły(oxypropylene)diamine	9046-10-0			00 10	1-5
epoxy resin	epoxy resin- whmis# 4977	Sup. Conf.	10-20	10-20	40.00	1-5
aromatic hydrocarbon resin	hydrocarbon resin		10-20	10-20	10-20	
	Try or o day o o i i te sii t	Sup. Conf.				5-10

Form: 4030, Page 2 of 3, prepared 06/06/03

Chemical Hazard Data

(ANSI Sections 2, 8, 11, and 15)

0		ACGIH-TLV			OSHA-PEL				S.R.	T 1			1					
Common Name	CAS. No.	8-Hour TWA	STEL	С	S	8-Hour TWA	STEL	C	S	Std.	S2	S3	CC	H	M	N		0
polyamidoamines	106906-26-7	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	R	n	n	÷	n		_	_
toluene	108-88-3	50 ppm	not est.	not est.	V	200 ppm	not est.	300 ppm	1101 001.	not est.	+		"	n		п	n	n
2-butoxyethanol	111-76-2	20 ppm	not est.	not est.	not est.	50 ppm	not est.	not est.	'		n	الزا	y	,	n	ก	n	<u>n</u>
2-butoxyethyl acetate	112-07-2	not est.	not est.	not est.	not est.	not est.	not est.	not est.	y	not est.	n	_У_	B	У	n	ก	n	n
mica	12001-26-2	3 mg/m3	not est.	not est.	not est.				not est.	not est.	n	У	n	У	_	n	n	n
limestone	1317-65-3	10 mg/m3	not est.	not est.		3 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	ก	n	n
iron oxide	1332-37-2	5 mg/m3	not est.		not est.	5 mg/m3	not est.	not est.	not est.	not est.	n	n	ก	n	n	C	n	n
titanium dioxide	13463-67-7	10 mg/m3		not est.	not est.	10 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	B	n	n
quartz	14808-60-7		not est.	not est.	not est.	10 mg/m3	not est.	not est.	not est.	not est.	n	n	0	n	n	n	n	n
diglycidyl ether of bisphenol a		.05 mg/m3	not est.	not est.	not est.	0.1 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	v	V	n
aluminum hydroxide	1675-54-3	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	n	2	n	п	ń	n	n
	21645-51-2	10 mg/m3	not est.	not est.	not est.	5 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	<u> </u>	n	n	'n
ethylene glycol monopropyl ether	2807-30-9	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	l n	Ü	'n	"	<u> </u>	"	n	'n
acetic acid	64-19-7	10_ppm	15 ppm	not est.	not est.	10 ppm	not est.	not est.	not est.	not est.	 ''		-:-	'n			$\overline{}$	
amorphous silica	7631-86-9	10 mg/m3	not est.	not est.	not est.	6 mg/m3	not est.	not est.	not est.	not est.	+		Y		- 13	n	-	n
poly(oxypropylene)diamine	9046-10-0	not est.	not est.	not est.	not est.	not est.	not est.	not est.			l n	- 12	ก	n	n	ก	n	n
epoxy resin- whmis# 4977	Sup. Conf.	not est.	not est.	not est.	not est.	not est.	not est.		not est.	not est.	n		n	n	n	n	n	n
hydrocarbon resin	Sup. Conf.	not est.	not est.	not est.	not est.	not est.		not est.	not est.	not est.	l n	ᅳ	n	n	n	n	n	n
					1101 631.	1101 681.	not est.	not est.	not est.	not est.	Inl	n I	n I	l n	в	n l	n I	n l

Footnotes:

C=Ceiling - Concentration that

S=Skin - Additional exposure, should not be exceeded, over and above airborn exposure, even instantaneously, may result from skin absorption.

n/a=not applicable not est=not established -CC=CERCLA Chemical

ppm=parts per million mg/m3=milligrams per cubic meter Sup Conf=Supplier Confidential

S2≖Sara Section 302 EHS S3=Sara Section 313 Chemical S.R.Std:=Supplier Recommended Standard

H=Hazardous Air Pollutant, M=Marine Pollutant P=Pollutant, S=Severe Pollutant Carcinogenicity Listed By: N=NTP, I=IARC, O=OSHA, y=yes, n=no

A second of the second of the

Form: 4030, Page 3 of 3, prepared 06/06/03